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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,735	05/18/2007	Jeffrey David Fowler	70333/UST	4467
85981	7590	10/25/2010	EXAMINER	
		Syngenta Corp Protection, Inc. 410 Swing Road Greensboro, NC 27409	ARNOLD, ERNST V	
			ART UNIT	PAPER NUMBER
			1613	
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			10/25/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/578,735	FOWLER ET AL.	
	Examiner	Art Unit	
	ERNST V. ARNOLD	1613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 09 August 2010.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-21 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-21 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Claims 1-21 are under examination.

Withdrawn rejections:

Applicant's amendments and arguments filed 8/9/10 are acknowledged and have been fully considered. Any rejection and/or objection not specifically addressed below is herein withdrawn. Claims 1-3, 6-13, 15, 16, 18, 19 and 20 were rejected under 35 U.S.C. 102(b) as being anticipated by Haesslin et al. (WO 2002/067682). Applicant's amendment has overcome this rejection and it is properly withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-21 remain/are rejected under 35 U.S.C. 103(a) as being unpatentable over Haesslin et al. (WO 2002/067682) in view of Killick et al. (US 7314848) and Douglass et al. (US 20050043182).

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Applicant claims an emulsifiable concentrate and method for the selective control of weeds in corps of useful plants.

Determination of the scope and content of the prior art

(MPEP 2141.01)

Haesslin et al. disclose on page 23 the instant emulsion concentrate composition and method of applying it to plants. As shown below:

- the instant active and safener are named;

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- castor oil polyglycol is an oil of vegetable origin and non-ionic surfactant (The instant oil adjuvant comprises an oil of vegetable origin and castor oil is originally from a vegetable.);
- a surfactant system that forms an oil in water emulsion once water is added;
- Solvesso 200 is a water immiscible solvent;
- Has a pH in the range of 4.5-8 when diluted with water; and
- Contains no water which is less than 2.5% water.

Emulsifiable concentrate EC 100 of clodinafop-propargyl and cloquintocet-mexyl known under the trade name CELIO®:

Ingredient:	[% by weight]
clodinafop-propargyl (herbicide)	10.0
cloquintocet-mexyl (safener)	2.5
castor oil polyglycol 36-37 (surfactant)	8.32
dodecyl-benzenesulfonic acid calcium salt, linear (surfactant)	6.66
1-methyl-2-pyrrolidone (solvent)	20.0
soybean oil, epoxidised (dispersing agent)	1.0
high-aromatic-content hydrocarbon mixture (solvent) (Solvesso 200)	remainder

Before application, the concentrated formulations set out above are diluted with an amount of 400 litres of water per hectare.

Castor oil and soybean oil are vegetable oils.

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It is clear from Haesslin et al. that the concentrate is already commercially available to the public (see above and Page 1:

2-(4-(3-Chloro-5-fluoro-2-pyridyloxy)-phenoxy-propionic acid propargyl ester has herbicidal activity, especially in crops of cereals, rice and soybeans; it is known by the name clodinafop-propargyl and is described, for example, in US-A-4 713 109.

Clodinafop-propargyl is preferably used together with the safener 2-(5-chloroquinolin-8-yloxy)-1-methylhexyl ester, which is known by the name cloquintocet-mexyl and is described, for example, in US-A-4 881 966. Both compounds are commercially available in the form of an emulsifiable concentrate (EC).

Haesslin et al. disclose adding co-herbicides (bottom page 4 and top of page 5).

The pH is buffered from a pH of 4 to 6 (page 5, middle).

No water is present in the emulsion concentrate above.

Mineral oil is suggested as well as rapeseed oil methyl ester (page 10). Haesslin et al. teach that mineral oils, fatty acid alkyl esters or rapeseed oil C1-C6 alkyl esters with preference given to rapeseed oil methyl ester and rapeseed oil ethyl ester as oil phase stabilizers (page 10, number 23).

Thickeners are added (page 11) as well as adjuvants (page 12).

The preparation of the emulsion is done by adding an aqueous phase to the organic phase (dilution with water) (pages 12-13). Once diluted a pesticidal composition is obtained. Methods of treating weeds are performed (page 20, Example B1 and claim 4).

Killick et al. teach methyl esters of canola oil and mineral oils for use as adjuvants in agricultural compositions (Abstract; column 5, lines 47-49; and claim 1-6).

Douglass et al. teach herbicides, algicides, fungicides, bactericides, viricides, insecticides, miticides, nematicides, molluscicides, acaricides, ectoparasiticides, and mixtures thereof in emulsifiable concentrates (Abstract and claims 1, and 39-46).

Ascertainment of the difference between the prior art and the claims

(MPEP 2141.02)

1. The difference between the instant application and Haesslin et al. is that Haesslin et al. do not expressly teach the adding an oil adjuvant the comprises a methyl ester of a plant oil (methyl ester of canola oil). This deficiency in Haesslin et al. is cured by the teachings of Killick et al.

2. The difference between the instant application and Haesslin et al. is that Haesslin et al. do not expressly teach a single embodiment further comprising at least one member selected from the group consisting of co-herbicides, fungicides, insecticides, acaricides and nematicides. This deficiency in Haesslin et al. is cured by the teachings of Douglass et al.

3. The difference between the instant application and Haesslin et al. is that Haesslin et al. do not expressly teach the cereal plant is wheat or barley. This deficiency in Haesslin et al. is cured by the teachings of common sense.

Finding of prima facie obviousness

Rational and Motivation (MPEP 2142-2143)

1. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to add an oil adjuvant the comprises a methyl ester of a plant oil (methyl ester of canola oil), as suggested by Killick et al., to the composition of Haeslin et al. and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because: "It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

2. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to add at least one member selected from the group consisting of co-herbicides, fungicides, insecticides, acaricides and nematicides, as suggested by Douglass et al., and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because Douglass et al. teach that one can not only mix the various biocidal active ingredients but one would desire the broad spectrum of efficacy provided by such a mixture for protection of the crops.

3. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to perform the method of Haesslin et al. wherein the cereal plant is wheat or barley and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because Haesslin et al. teach cereal crops and one of ordinary skill in the art of crop protection understands which crops, such as wheat and barley, are cereal crops.

In light of the forgoing discussion, the Examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a).

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Response to Arguments:

Applicant asserts that Haesslin teaches away from emulsifiable concentrate EC100 and directs the artisan to make emulsions with about 26 to 61 wt% water. However, the composition of Haesslin is composed of two parts: an organic phase and an aqueous phase. When the ordinary artisan makes the organic phase of Haesslin as an emulsifiable concentrate, there is no water present and this reads on the instant invention. Furthermore, it is noted that instant claim 1 has a limitation concerning dilution to 1% concentration with distilled water and instant claim 16 requires dilution of the concentrate according to claim 1 in order to form an oil in water emulsion which would appear to destroy Applicant's arguments concerning the chemical stability during

storage as even Applicant is diluting the composition with water. Furthermore, Haesslin teaches concentrated formulations that are diluted with water before application. Hence, water is not added until application. These arguments are not persuasive.

With respect to the addition of the secondary references, this rejection is based on the well established proposition of patent law that no invention resides in combining old ingredients of known properties where the results obtained thereby are no more than the additive effect of the ingredients, *In re Sussman*, 1943 C.D. 518. No objective evidence has been presented that demonstrates synergism and/or unexpected results. Each component functions as one of ordinary skill in the art would expect it to function with predictable and expected effects. In other words, the combination of ingredients does no more than they would in separate sequential doses.

From MPEP 2143 A: "...all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination yielded nothing more than predictable results to one of ordinary skill in the art. *KSR*, 550 U.S. at ___, 82 USPQ2d at 1395; *Sakraida v. AG Pro, Inc.*, 425 U.S. 273, 282, 189 USPQ 449, 453 (1976); *Anderson 's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57, 62-63, 163 USPQ 673, 675 (1969); *Great Atlantic & P. Tea Co. v. Supermarket Equipment Corp.*, 340 U.S. 147, 152, 87 USPQ 303, 306 (1950)."

Respectfully, no unexpected results have been presented and Applicant's arguments are not persuasive. Accordingly, the rejection is properly maintained.

Conclusion

No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERNST V. ARNOLD whose telephone number is (571)272-8509. The examiner can normally be reached on M-F 7:15-4:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Kwon can be reached on 571-272-0581. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ernst V Arnold/
Primary Examiner, Art Unit 1613